
Locking Device

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Patent Claims

1. A locking device (10), comprising:

an adjustable bracket (7) provided with a recess (16),

a stationary contour (9) with a contact surface (12),

10 a pin (8), which is arranged movably in said recess (16) and to which an axial spring force generated by means of a compression spring (21) is applied, with a pin head (14), which projects from said recess (16) of said bracket (7) and has a contact pair with said contact surface (12), and

at least one said centering device (18) between said pin (8) and said bracket (7), characterized in

15 that said, at least one centering device (18) has at least one said, elastically deformable ring (19), which is arranged between said pin (8) and said bracket (7) within said recess (16), is arranged displaceably within said recess (16), and has a surface (22) with a cross section tapering against the direction of the force of said compression spring (21), which said surface is in contact with a complementary surface (23) at said pin (8).

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2. A locking device (110), comprising:

an adjustable bracket (107) provided with a recess (116),

a stationary contour (109) with a contact surface (112) having at least one said depression (113),

a pin (108), which is arranged movably in said recess (116), and to which an axial spring force generated by means of a compression spring (121) is applied, wherein said pin head (114) projects from said recess (116) of said bracket (107) and has a contact pair with said contact surface (112), and

- 5 at least one said centering device (126) between said pin (108) and said bracket (107), characterized in that
said centering device (126) takes place by means of two said elastically deformable rings (130; 131), which
are arranged between said pin (108) and said bracket (107) within said recess (116), and
10 have a surface (134; 135) each tapering in the direction of the longitudinal axis of said recess (116), wherein said elastically deformable rings (130; 131) are in contact with one another via tapering surfaces (134; 135).

3. A locking device in accordance with claim 1 or 2,

- 15 characterized in that
the at least one said, elastically deformable ring or said elastically deformable rings (19; 27; 130; 131) has/have at least one said slot (20; 28; 132; 133), which is/are arranged axially or obliquely to said longitudinal axis (15; 115) of said pin (8; 108) and/or said recess (16; 116) and completely or partially severs/sever said ring (19; 27; 130; 131).

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4. A locking device in accordance with one of the above claims,

characterized in that

said tapering surface (22; 29; 134; 135) of said elastically deformable ring or elastically

deformable rings (19; 27; 130; 131) has a conical shape.

5. A locking device in accordance with one of the claims 2 through 4,

characterized in that

a first elastically deformable ring (130) is in contact by its side facing away from said first ring (130) with said compression spring (121) and that a second elastically deformable ring (131) is supported by its flat front side with said bracket (107).

6. A locking device in accordance with one of the claims 2 through 5,

10 characterized in that

said compression spring (121) is in contact with said pin (108) on side facing away from said slotted ring (130).

7. A locking device in accordance with claim 1 or 2,

15 characterized in that

said compression spring (21; 121) is in contact with said bracket (7; 107) on the side facing away from said slotted ring.

8. A locking device in accordance with claim 1 or 2,

20 characterized in that

said locking device (10; 110) has two said centering devices (18; 26) (118; 126), which are located at spaced locations from one another and are in functional connection with one another via a compression spring (21; 121).

9. A locking device in accordance with claim 8,

characterized in that

a first centering device (18; 118) is arranged in the vicinity of said opening (17; 117) of said recess (16; 116) and a second centering device (26; 126) is arranged inside said recess (16; 116).

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10. A locking device in accordance with one of the claims 8 through 9, characterized in that

said first centering device (118) takes place by means of a elastically deformable ring (119), which is arranged between said pin (108) and said bracket (107) within said recess (116),

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is arranged displaceably within said recess (116), a surface (122) has a cross section tapering against said compression spring (121), which surface is in contact with a complementary surface (123) at said pin (108), and

said second centering device (126) takes place [sic - Tr.Ed.] by means of two said elastically deformable rings (130; 131), which

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are arranged between said pin (108) and said bracket (107) within said recess (116), and

have a surface (134; 135) tapering in the direction of the longitudinal axis of said recess (116),

wherein said elastically deformable rings (130; 131) are in contact with one another via their said tapering surfaces (134; 135).